REMARKS

In the Official Action mailed on September 13, 2004, the Examiner has rejected claims 1 – 27 as being obvious under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,484,311 (Detwiler et al.) in view of United States Patent 6,227,920 (Alby et al.).

The Examiner states that Detwiler et al. discloses a jack plate with rails, a piston, a cylinder, a pump, and a motor. Then the Examiner says that "note that the cylinder of Detwiler et al. is capable of being removed." While applicants concede that virtually any structure has components that are "capable of being removed" by completely dismantling the entire structure, applicants vigorously disagree that the cylinder in the structure described in the Detwiler et al. patent can be removed in any manner that is remotely similar to the ease with which the cylinder can be disconnected and removed from the compact jack plate of the subject invention.

Applicants respectfully direct Examiner's attention to the critical language in claim 1 which states that the hydraulic cylinder is detachable from the first member "while said second member remains supported by said first member." This is clearly not true with regard to the device described in the Detwiler et al. patent.

Applicants respectfully direct Examiner's attention to the Detwiler et al. patent, beginning at line 28 of column 3, where it states:

> "These **plates 10 and 12 are rigidly connected together by side plates 3 and 5 and support rods 11**, so that the first plate 10 is disposed above the second plate 12, as shown in FIGS. 1 and 2. The second bracket 6 includes a third plate 14 and a fourth plate 16. **Plates 14 and 16 are rigidly connected together by side plates 7 and 9**, so that the third plate 14 is disposed above the first plate 10, and the fourth plate 16 is disposed below the second plate 12, as shown in FIGS. 1 and 2." (Emphasis added)

With reference to the above cited description and also to Figure 1 of the Detwiler et al. patent, it clearly states that plates 10 and 12 are rigidly connected together by side plates 3 and 5 and by support rods 11. It also states that plates 14 and 16 are rigidly connected together by side plates 7 and 9. With reference to Figures 2 and 3, it can be seen that the cylinder 20 in the Detwiler device is formed as a permanently attached member to plates 10 and 12. If an attempt is made to remove the cylinder 20 without also removing those two plates, the internal contents (hydraulic oil) of the cylinder 20 would spill out of the cylinder. In addition, the piston rod 22 extends through plate 10.

Even if an operator wished to remove the cylinder 20 and plates 10 and 12, together with each other, how would that structure be moved away from the other components of the jack plate, such as motor support bracket 6, the third plate 14, and side plates 3 and 5? The only way for this cylinder 20 to be removed from the structure would be to completely dismantle the structure. This clearly could not be done without first removing the outboard motor from its attachment to the jack plate.

The intended rigid structure described in the Detwiler et al. patent is also discussed in the Detwiler et al. reference, beginning at line 44 of column 3, where it states:

> "**A piston 24**, slidable within the interior of the cylinder 20, **is rigidly connected to one end of an elongated piston rod 22**. Rod 22 extends upward from piston 24, along the axis of cylinder 20, and through an aperture in plate 10. Bearing 29, fixed to the inner wall of the aperture, guides rod 22. A T-seal 25 is located below bearing 29 in a slot in the wall of the aperture, and an outer seal 33 is provided above bearing 29 and held in place by a plate 23 attached to the upper face of plate 10. The seals prevent the entry of foreign objects into cylinder 20. **Rod 22 is rigidly connected to plate 14."** (Emphasis added)

Once again, the structure in the Detwiler et al. patent is consistently and unmistakably described as a rigid structure from which the cylinder is not easily removed except by dismantling the entire structure.

Applicants performed a word search through the Detwiler et al. patent and found twenty seven occurrences of the word "rigidly" and seventeen occurrences of the phrase "rigidly connected". Not surprisingly, applicants were unable to find any occurrences of the word "remove" or "apart". It is clear that the Detwiler et al. reference teaches a jack plate structure that is not intended to allow this cylinder to be removed except after the other plates and brackets of the jack plate are first dismantled. As a natural result of this teaching, it also teaches that its various members of the structure cannot remain in support of other members of the structure while the hydraulic cylinder is not attached.

Applicants respectfully direct Examiner's attention to the subject patent application, beginning at line 15 of page 8, where it states:

> "A hydraulic cylinder 30, having a piston rod 32 disposed at least partially therein, is attached between the first and second members, 10 and 24. As a result of this relationship, movement of the piston rod 32 relative to the hydraulic cylinder 30 causes the second member 24 to move relative to the first member 10. The hydraulic cylinder 30 is detachable from the first member 10 **while the**

> **second member 24 remains supported by the first member 10**." (Emphasis added)

In the above cited portion of the subject patent application, an important functional advantage of the subject invention is described. Because of the way that the jack plate of the subject invention is constructed, the operator of the marine vessel, without removing the outboard motor from the jack plate and without removing the jack plate from the marine vessel, can perform several simple steps that result in the cylinder being removable from the jack plate while the outboard motor remains supported by the jack plate which remains attached to the marine vessel.

The preferred embodiment of the subject invention is described in terms of using a mechanical stop that comprises threaded bolts 36. Although other techniques can be used to replace the threaded bolts with other devices, this preferred embodiment is described in the subject patent application, beginning at line 22 of page 10, where it states:

> "The **threaded bolts 36** are threaded into holes in the first member 10 so that the **heads of the threaded bolts 36 prevent surface 90 of the second rail device 23 from moving downwardly past the location defined by the heads of the threaded bolts 36.** Therefore, if the bolts 56 are loosened to allow the removable bracket member 20 to move away from the remaining portions of the first member 10, the second member 24 will be prevented from continuing downwardly past the location defined by the heads of the threaded bolts **36**. **This allows the removable bracket member 20 and the hydraulic components, 30, 40, and 42, to be removed from the jack plate without requiring that the outboard motor be removed from the jack plate.** The heads of the threaded **bolts 36 provide a mechanical stop device** that allows the outboard motor to be supported by those heads even as the removable bracket member 20 and the hydraulic components are loosened and removed from the assembly." (Emphasis added)

As described above, the structure of the preferred embodiment of the subject invention allows the removable bracket member 20 and the hydraulic components, 30, 40, and 42, to be removed from the jack plate without requiring that the outboard motor be removed from the jack plate. In other words, the jack plate continues to perform its supporting function even while certain portions (e.g. the cylinder) are removed for repair or replacement. This provides a significant advantage over jack plates known to those skilled in the art.

Applicants respectfully direct Examiner's attention to the fact that the Detwiler et al. patent specifically and unmistakably describes its invention as comprising rigidly attached plates.

As one example of these numerous references, applicants respectfully direct Examiner's attention to claim 1 of the Detwiler et al. patent which states:

> "1. A motor mount for adjustably supporting an outboard motor from a transom of a boat, said motor mount comprising:
>
> first and second brackets;
>
> means for connecting one of said brackets to a transom;
>
> means for mounting an outboard motor to the other of said brackets;
>
> guide means, connected to said first and second brackets, for constraining said brackets to relative movement in a predetermined, substantially straight, path, said path being substantially vertical when said one of said brackets is connected to a transom by said connecting means; means, connected to said first and second brackets, for effecting movement of said brackets relative to each other in said path;
>
> in which said first bracket comprises first and second plates disposed with the first plate above the second plate, and **means rigidly connecting said first and second plates together**;
>
> in which said second bracket comprises third and fourth plates, the third plate being located above said first plate and the fourth plate being located below said second plate, and **means rigidly connecting the third and fourth plates together**; and
>
> in which said guide means comprises at least one elongated tubular member extending from said first plate to said second plate, and **being rigidly connected to said first and second plates**, a rod extending through said tubular member, **said rod being rigidly connected to said third and fourth plates**, and means comprising a pair of bearings mounted in said tubular member, said bearings being spaced from each other in the direction of the length of said tubular member, said rod extending through said bearings and being slidable therein but held thereby against translation relative to said substantially straight path." (Emphasis added)

The primary advantages of the subject invention are described, along with the related procedures, in the subject patent application, beginning at line 10 of page 12, where it states:

> "As the bolts 56 are loosened, the weight of the outboard motor and second member 24 will cause the second member 24 to move downward with the loosened removable bracket member 20. After a slight movement downward, **the bottom surfaces 90 of the second rail device 23 will eventually move into contact with the heads of the threaded bolts 36** which were described above in

conjunction with Figure 1. From that point onward, **the second member 24 will be supported by the heads of the threaded bolts 36 and the removable bracket member 20 can be loosened and eventually disconnected from the first member 10**. The pin 50 can then be removed to disengage the piston rod 32 from the second member 24. When this is accomplished, the removable bracket member 20 and the hydraulic components can be lowered and removed from the jack plate. **The hydraulic components, which include the hydraulic cylinder 30, the motor 42, and the hydraulic pump 40, can be repaired or replaced without having to remove the outboard motor from the jack plate.** Alternatively, routine maintenance can also be performed on the hydraulic components." (Emphasis added)

Unlike the device described in the Detwiler et al. patent, the subject invention provides mechanical stops, in a preferred embodiment of the subject tinvention, and does not rely on the cylinder supporting the structure. Therefore, when the cylinder is removed by the process described immediately above, the bottom surfaces 90 of the second rail device 23 remain supported by the heads of the threaded bolts 36. The cylinder can then be removed and repaired, or merely inspected, while the outboard motor remains supported by the jack plate. Because of this, the operator of the marine vessel need not perform the cumbersome and potentially dangerous tasks of removing the outboard motor before performing basic inspection, repair, or replacement operations on the cylinder.

With regard to the Alby et al. patent cited by Examiner, applicants respectfully point out for Examiner's consideration that the device described and claimed in the Alby et al. patent is a multipositioned fastener which is used to attach a transom plate to a transom of a boat. Although the device disclosed in the Alby et al. patent is used in applications where the subject invention can also be used, it performs significantly different functions. In doing this, it differs significantly from any portion of the subject invention, particularly the bolts 36 which act as mechanical stops.

As shown above, the subject invention is claimed as a jack plate which comprises first and second members. The function of the Alby et al. patent is to attach a transom plate or jack plate to a transom of a marine vessel which is not a portion of a jack plate. With reference to claim 2, as an example, the mechanical stop device of the subject invention is claimed as being intended to prevent the second member from moving beyond a preselected location relative to the first member when the hydraulic cylinder is detached from the first member. The device described in the Alby et al. reference is incapable of doing this without preventing all relative

movement between the first and second members of the jack plate. Applicants can understand how the bolt used in the Alby et al. patent can operate as a mechanical stop in the event that the entire jack plate structure is dropped (during a position adjustment) relative to the transom, but this function would be inadvertent and is clearly not advisable. The structure described in the Alby et al. patent is intended to allow several rigid fastening positions to be achieved with the single structure. It is not intended to allow a first member and a second member to move relative to each other up to a point where the structure (i.e. the bolt 36 in the subject invention) then prevents further movement beyond that limited range of movement. As such, the Alby et al. patent is not able to perform the function of the mechanical stop or the bolts 36 described and claimed in the subject patent application.

Since the structure disclosed in the Alby et al. reference is not intended to allow relative movement up to a stop point, as in the subject invention, and is connected between the jack plate and an external component (the transom of a marine vessel), applicants respectfully contend that this reference is not logically combinable with the Detwiler et al. patent other than the possibility that the Detwiler et al. jack plate could be attached to a transom using the invention disclosed in the Alby et al. patent. However, the two functions of these two references do not combine to disclose the subject invention or make it obvious.

Additionally, the bolts used to perform the function of the mechanical stop device of the subject invention are not movable relative to a slot, as taught in the Alby et al. reference. The bolts in the subject invention perform a simple and basic function of providing a stationary stop that prevents further relative movement between the plates. In other words, it supports the outboard motor plate at a position which allows the jack plate to continue to support the outboard motor even when the cylinder is removed from the jack plate structure.

Applicants respectfully point out for Examiner's consideration that the subject invention is claimed in a way that includes the phrase "while said second member remains supported by said first member." This phrase alone distinguishes the subject invention from the Detwiler et al. patent.

Applicants also respectfully contend that the combination of the Detwiler et al. and the Alby et al. patent is not suggested or supported by any teaching in either of the two patents. The Detwiler et al. patent clearly does not anticipate or consider the possibility that removal of its cylinder is desirable without having to dismantle the remaining part of its structure. The Alby et

al. patent, on the other hand, is intended to provide a means for attaching a transom plate or jack plate to the transom of a marine vessel and is not intended to perform any function whatsoever with regard to the internal operation of a jack plate. As described throughout the subject patent application and as further discussed above, the primary purpose of the subject invention is to allow the cylinder to be removed without having to remove the jack plate from the marine vessel or requiring the outboard motor to be removed from the jack plate. The function of the device disclosed in the Alby et al. patent is to facilitate removal and relative movement between the jack plate and the marine vessel. These concepts teach away from each other.

Applicant intends to provide formal drawings after receipt of the Notice of Allowance to replace the originally filed drawings which, although determined by the Examiner to be suitable for prosecution, are informal.

In view of the above discussion, applicants respectfully request Examiner's reconsideration of the subject patent application and expeditious allowance of claims 1 – 27.

Respectfully Submitted,

William D. Lanyi

Patent Attorney
Reg. No. 30,190
(920) 929-5419

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C., 20231, on:

October 5, 2004
Date of Deposit

Theresa Woodruff
Depositor's Name

Theresa Woodruff
Signature

10-5-2004
Date of Signature